

**UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF VIRGINIA
Norfolk Division**

CSX TRANSPORTATION, INC.,)	
)	
<i>Plaintiff,</i>)	
)	
v.)	Case No. 2:18-cv-530
)	
NORFOLK SOUTHERN RAILWAY)	
COMPANY, et al.,)	
)	
<i>Defendants.</i>)	

**DEFENDANT NORFOLK SOUTHERN RAILWAY COMPANY'S
MEMORANDUM IN SUPPORT OF ITS
MOTION TO EXCLUDE OPINIONS OF PROFESSOR HOWARD P. MARVEL**

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2A Phillip E. Areeda & Herbert Hovenkamp, <i>Antitrust Law: An Analysis of Antitrust Principles and Their Application</i> (5th ed. 2020)	10, 20

TABLE OF EXHIBITS

Exhibit	Description	Citation	Confidentiality
1	Expert Report of Prof. Howard P. Marvel	¶¶ 20, 35, 51, 78-81, 88-94, 96-98, 99 and Ex. 11	AEO
2	Supplemental Expert Rep. of Prof. Howard P. Marvel	¶ 9	AEO
3	Marvel Dep.	21:22-22:23, 33:13-23, 41:20-42:2, 45:10-13, 72:24-73:10, 87:1-87:7, 87:8-87:19, 127:1-4, 128:2-8, 128:9-15, 136:11-138:22, 151:16-152:2, 157:3-6, 157:9-13, 157:14-18	AEO
4	Supplemental Report of Matthew B. Wright	¶ 18, Chart 1	AEO
5	Expert Report of Matthew B. Wright	17, 29, 35, 59 (Chart 1), 60, 61, 73, 74, 132, 136, 137, 152, 207, 209-210; Tbls. 1,2, 5, 6, 8, 14	AEO
6	Heller (first) Dep.	36:18-21, 37:13-38:12	Confidential
7	Strongosky (first) Dep.	45:14-47:1, 62:21-63:23, 69:15-70:1, 83:5-13, 89:21-90:4, 112:8-24, 137:17-138:12, 148:17-149:19, 195:2-9, 212:1-6, 219:9-18	AEO: 89:21-90:4, 148:17-149:19, 195:2-9, 212:1-6, 219:9-18
8	Kenney (first) Dep.	29:20-30:11, 41:20-42:1, 47:12-21, 117:5-15	AEO: 117:5-15
9	Piacente Dep.	73:24-74:6, 73:24-74:23, 89:23-90:11, 127:6-129:18	
10	Houfek Dep.	19:13-25, 51:3-25, 141:7-16	AEO: 51:9-25
11	Dec. 15, 2017 Email from R. Girardot to W. Barton re: NY to Pittsburgh	CSXT0063241 at 241	AEO
12	Oct. 10, 2018 Email from J. Strongosky to M. Kenney re: West vs. East Breakdown	CSXT0069501 at 501	AEO
13	Dec. 1, 2014 Email from C. Warren to D. Smith re: Intermodal rates to the Midwest	CSXT0034771 at 771-72	AEO

Exhibit	Description	Citation	Confidentiality
14	May 26, 2016 Email from R. Girardot to J. Tuttle re: Inland pricing via Baltimore	CSXT0045124 at 124	AEO
15	Capozzi Dep.	100:4-22, 100:23-101:13, 101:5-13, 105:1-6, 187:20-23, 192:21-193:21, 193:24-194:6	Confidential (entire transcript)
16	Girardot (first) Dep.	60:16-22, 62:7-17, 64:17-20, 64:21-65:10, 77:25-78:3, 184:12-25, 217:5-12	AEO: 217:5-12
17	Apr. 18, 2019 Email from T. Capozzi to J. Strongosky re: MISC and increased volume	CSXT0074449 at 449	AEO
18	May 13, 2019 Email from T. Capozzi to C. Warren re: setting up CSX for growth at POV	CSXT0074914 at 915	AEO
19	Joyner Dep.	19:7-20:9, 118:18-119:4	
20	Heartland Corridor Overview	NSR_00001839 at 840	AEO
21	McClellan Dep.	22-23, 119:4-120:18, 151	AEO: 22-23 Confidential: 151
22	Strongosky (2d) Dep.	18:5-22, 18:10-19:16, 24:2-22, 27:19-28:1, 32:10-18, 32:15-18, 70:17-71:3, 70:17-71:13	AEO: 19:4-7, 24:3, 24:7-10, 27:21-25, 70:17-71:3, 70:17-71:13
23	NS & CSX Schedule	CSXT0165126	Confidential
24	MacDonald Dep.	42:3-6, 90:18-92:5, 92:21-93:1, 97:7-17, 121:4-9, 134:16-135:9	Confidential: 134:16-135:9
25	Martinez Dep.	31:20-32:04	AEO
26	Operation Plan, May 2010	NSR_00306428 at 429	Confidential
27	Mar. 27, 2015 Email from C. Matter to T. MacDonald re: NPBL to NIT	CSXT0001276 at 276	AEO
28	CSX Operation Plan, May 20, 2010	NPBL013648 at 649	
29	Mar.20, 2017 Email from R. Girardot to T. Hart re: ZIM-Norfolk NIT Activity	CSXT0117504 at 504	AEO
30	CSX CMA Virginia Options – Mar. 31, 2015	CSXT0037049 at Slide 4	AEO
31	Hall Dep.	33:20-22	Confidential

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32	Eliasson Dep.	49:2-51:8, 81:6-9	
33	Dec. 12, 2016 Email from T. MacDonald to K. Manz re: Port of Virginia operating details	CSXT0050615 at 615	AEO
34	Kendall Dep.	29:16-30:1	
35	Meeting with VPA and CSX, May 19, 2010	VPA000793	
36	CSX NIT Access Discussion	CSXT0003603 at 616	AEO
37	CSX Network and Terminal Expansions Support Growth	CSXT0074939 at Slides 3-4	AEO
38	Jan. 19, 2017 Email from B. McGlone to S. McGhahey re: "What If" from Maersk	CSXT0052080 at 082-083	AEO
39	Feb. 19, 2019 Email from T. Capozzi to J. Strongosky re: MSC	CSXT0072702 at 702	AEO
40	Jun. 4, 2014 Email from C. Warren to T. Biscan re: VIT	CSXT0032388 at 388	AEO
41	Port Strategy Review – Intermodal	CSXT0124777 at 777, - 778	AEO
42	Marvel Reply Rep.	¶¶ 40, 107, 122, 124 and Ex. 15	AEO
43	Warren Dep.	72:12-73:5, 122:9-17	AEO: 122:9-17
44	Vick Dep.	27:25-28:8, 48:17-49:6	Confidential
45	May 6, 2014 Email from B. McGlone to T. Biscan re: Crowley Threads Meeting Results 4/30	CSXT0032082 at 082	AEO
46	Port of Baltimore – Port Review, Jan. 24, 2018	CSXT0159556 at 565	AEO
47	Intermodal Activity Report Week Ending 8-4-2017	NSR_00041595 at 597	AEO
48	May 27, 2015 Email from B. McGlone to J. Strongosky re: Yang Ming	CSXT0038547 at 547	AEO
49	Mar. 2, 2018 Letter from J. Aihie to M. Martinez	CSXT0159221 at 221	AEO
50	Mar. 5, 2018 Letter from D. Piacente to Alexis/Michael and cover email	CSXT0159245 at 246-247	AEO
51	Nov. 16, 2016 Email from L. Creech to T. MacDonald re:	CSXT0049507 at 508	Confidential

Exhibit	Description	Citation	Confidentiality
	CSX visit to Norfolk on Nov. 22		
52	Mar. 1, 2019 Email from A. Beazley to R. Girardot re: Port of VA Questions/Issues UPDATE	CSXT0073025 at 027	AEO
53	Aug. 8, 2018 Email from C. Warren to S. Davis re: VPA Meeting	CSXT0067839 at 840	AEO
54	McClellan (second) Dep.	174:14-23	Confidential
55	April 21, 2014 National Gateway & Virginia Avenue Tunnel: A Path Forward	CSXT0000897 at Slides 6-7	AEO
56	10-29-2015 Email re: Intl contracts	CSXT0001792 at 792-794	AEO
57	CSX ZIM Integrated Shipping Services, Nov. 10, 2016	CSXT0052366 at Slide 9	AEO
58	CSX International Market Share	CSXT0024736	AEO
59	Feb. 13, 2018 Email from T. Hart to D. Piacente re: DRAFT Profiles/Agenda CMA / ZIM	CSXT0158984, at 986	AEO
60	CSX International Market Share	CSXT0046841 at Slide 8	AEO
61	2013 Norfolk Southern East Coast Port Review	NSR_00000912 at Slide 21	AEO
62	CSX NIT Discussion	CSXT0003592 at Slide 11	AEO
63	Oct. 12, 2016 Draft Letter to T. Capozzi	CSXT0096239	AEO

Defendant Norfolk Southern Railway Company (“NS” or “NSR”), by counsel and pursuant to Rule 702 of the Federal Rules of Evidence, submits the following brief in support of its Motion to Exclude Opinions of Professor Howard P. Marvel. For the following reasons, NS’s Motion should be granted, and Prof. Marvel’s opinions should be excluded from trial.

INTRODUCTION

Plaintiff CSX Transportation, Inc. (“CSX”) claims that it has been improperly foreclosed from accessing by rail a single intermodal terminal in the Port of Virginia (the “Port”) – the Norfolk International Terminal (“NIT”) – which allegedly has caused ocean carriers to pay inflated rail transportation rates and resulted in CSX losing [REDACTED]

[REDACTED] To support this startling claim, CSX relies on Professor Howard P. Marvel as its expert economist to establish harm to the ocean carriers and to estimate CSX’s alleged damages, both necessary elements of proof of CSX’s antitrust and damages claims. Prof. Marvel built two models that purport to establish harm to competition by assessing the prices NS charged and the margins NS earned from ocean carriers (the “Effects Models”). Prof. Marvel built another regression model to attempt to quantify CSX’s alleged damages by [REDACTED]

[REDACTED]

Prof. Marvel’s theory of harm to competition is that CSX’s lack of on-dock access to NIT, at the hands of NS and its affiliate, the Norfolk and Portsmouth Beltline Railroad Company (“NPBL”), effectively foreclosed CSX from NIT and enabled NS to charge ocean carriers higher prices. At the core of this theory is the assumption that there is a given – or inherent – demand for service specifically at NIT, as opposed to the other main terminal at the Port, Virginia International Gateway (“VIG”). As Prof. Marvel put it, those ocean carriers that use NIT intensively are “beholden” to NS. Ex. 1, Expert Report of Prof. Howard P. Marvel ¶ 78. They allegedly have no

other option for transportation service. With ocean carriers purportedly beholden to NS at one terminal at one of several ports along the East Coast, Prof. Marvel's theory goes, [REDACTED]

[REDACTED] Ex. 2, Supplemental Expert Rep. of Prof. Howard P. Marvel ¶ 9. Prof. Marvel's results depend on the assumption that there is an inherent demand for service at NIT. However, that assumption is unsupported and contradicted by the record. As a result, both the Effects Models and the Damages Model are invalid as are Prof Marvel's fantastical opinions about CSX's alleged lost profits.

Specifically, the models [REDACTED]

[REDACTED] As a result, intensity of use is only meaningful if it reflects an inherent demand for service at NIT that cannot be satisfied through other options. Rather than speak to the ocean carriers, which Prof. Marvel admits would have been "valuable," he *assumes* that intensity of use reflects inherent demand, even though the record contradicts that assumption. The evidence is clear: the Port, not the ocean carriers, determines whether an ocean liner docks at VIG, NIT, or, while it was open, the Portsmouth Marine Terminal ("PMT"). The Port seeks, consistent with other factors, to assign a ship to NIT if the ocean carrier has a contract with NS, and to VIG if the carrier has a contract with CSX. [REDACTED]

[REDACTED] This assumption underlies all of Prof. Marvel's analysis of harm and damages, and none of that work is reliable as a result. Moreover, Prof. Marvel confuses cause and effect. Intensity of use of NIT is not an effect caused by NS and the NPBL's alleged conduct; it is caused by the Port steering ocean carriers to the various terminals within the Port and an ocean carrier's choice to contract with a given railroad. Prof. Marvel ignored the record evidence when building

his regression models.

Finally, even if there was evidence showing that ocean carriers cared about CSX's purported lack of on-dock access at NIT (there is none), Prof. Marvel's modeling nevertheless is incapable of distinguishing between anticompetitive and procompetitive explanations. In other words, Prof. Marvel's modeling cannot explain why CSX fared as it did over the years because he has not, and he admits he could not, account for other causal factors. NS enjoyed competitive advantages over CSX at the Port of Virginia over the years. Beginning in 2010, for example, NS operated double-stack train service out of the Port of Virginia. Until CSX gained that capability in December 2016, NS offered a much more efficient service. [REDACTED]

[REDACTED]

[REDACTED] Also, NS owns the tracks at NIT, so it does not need to use (or pay) NPBL to access NIT by rail. Finally, [REDACTED]

[REDACTED]

[REDACTED] These advantages may explain why CSX had less business than NS at the Port of Virginia. Perhaps CSX's lack of on-dock access to NIT was not a factor. Indeed, there is no evidence to suggest that the lack of on-dock rail access at NIT was the cause of any lost revenue to CSX, much less the grandiose claims made here. Prof. Marvel's opinions are inadmissible because, as Prof. Marvel admits, he does not account for the presence of NS's legitimate competitive advantages as the possible cause of ocean carriers choosing NS and, by extension, NIT. His modeling is not capable of distinguishing between procompetitive and anticompetitive explanations for the results.

[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]¹

Because his models do not distinguish between these explanations, Prof. Marvel wrongly attributes “harm” to NS and NPBL. That regular competition, not anticompetitive acts, is driving CSX’s results at the Port is made graphically clear by the data. As described below, CSX labored under disadvantages of its own making. In more recent years, however, CSX has committed resources to serving the Port in a competitive way, particularly through double stacking. As a result, [REDACTED]
[REDACTED]

[REDACTED] Ex. 4, Supplemental Report of Matthew B. Wright ¶ 18 and Chart 1.

One might expect that if Prof. Marvel’s analysis is so fundamentally flawed, then the results of his analysis are obviously wrong. That is exactly the case here. For example, despite CSX’s purported foreclosure from NIT, [REDACTED]
[REDACTED] Moreover, CSX could have gotten the NIT on-dock access it desired by [REDACTED] Ex. 5, Expert Report of Matthew B. Wright ¶ 136 and Tbl. 8. It is beyond incredible that, if CSX had merely paid these fees, it would have made [REDACTED]. The fact that CSX did not make such a modest investment to gain so much exposes Prof. Marvel’s analyses and opinions for what they are: unsupported, inadmissible, and contrary to both the record and common sense.

¹ Ex. 3, Marvel Dep. at 157:9-13.

Under these circumstances, the Court is required to exercise its gatekeeping function and exclude Prof. Marvel's testimony and underlying analyses regarding harm to competition and damages to CSX.

BACKGROUND

A. Ocean Carriers Utilize Multiple Ports Along the East Coast to Deliver Cargo to the Midwest.

Ocean carriers contract with railroads and with trucks to move their import and export cargo between the ports and inland markets. Ships will generally call at multiple East Coast ports on any given voyage, loading and unloading intermodal containers at multiple ports. When an ocean carrier contracts with a single railroad for the bulk of its needs, the carrier and the railroad are said to be "aligned," meaning the carrier relies on that railroad across multiple East Coast ports, not just at the Port of Virginia.²

Many ocean carriers tend to enter into multi-year contracts with CSX and NS. NS and CSX compete vigorously with each other and with trucks for ocean carriers' intermodal container business at all East Coast ports, including the Port of Virginia.³ The Port of Virginia terminals serve ocean carriers transporting cargo containers to and from major Midwest inland markets. Other East Coast ports, and indeed West Coast ports, serve the same Midwest markets.⁴

² Ex. 5, Wright Rep. ¶ 29; Ex. 1, Marvel Rep. ¶ 20; Ex. 6, Heller (first) Dep. at 37:13-38:12.

³ Ex. 6, Heller Dep. (first) 36:18-21.

⁴ Ex. 7, Strongosky (first) Dep. at 62:21-63:23; Ex. 8, Kenney (first) Dep. at 29:20-30:11; Ex. 9, Piacente Dep. at 89:23-90:11; Ex. 10, Houfek Dep. 19:13-25; Ex. 11, CSXT0063241 at 241; Ex. 12, CSXT0069501 at 501; Ex. 13, CSXT0034771 at 771-72; Ex. 14, CSXT0045124 at 124.

B. The Port of Virginia Determines at Which Terminal a Ship Will Dock.

The Port of Virginia actively manages port operations and directs ocean carriers to berth at a particular terminal through its operating arm, Virginia International Terminal (“VIT”).⁵ One of CSX’s witnesses, Robert Girardot, admitted that the Port of Virginia is the decisions maker:

[REDACTED]
[REDACTED]
[REDACTED]⁶

Another CSX witness, Jay Strongosky, also admitted that the Port assigns ships to terminals to match the ocean carrier’s alignment with CSX or NS,⁷ and a Port of Virginia witness, Tom Capozzi, confirmed [REDACTED]

[REDACTED]

[REDACTED]⁸ *i.e.*, the Port tries to dock the ships of carriers aligned with NS at NIT and those aligned with CSX at VIG. [REDACTED]

[REDACTED]⁹ An ocean carrier does not care whether its ship docks at NIT or VIG; [REDACTED]

[REDACTED]¹⁰

[REDACTED]

⁵ The record includes extensive evidence that the Virginia International Terminals, or VIT, as it is referred to colloquially in the documents and testimony, directs ocean carriers to berth at either NIT or VIG, or at PMT during the years that terminal was in operation. Ex. 15, Capozzi Dep. at 100:23-101:13, 193:24-194:6; Ex. 16, Girardot (first) Dep. at 64:17-20; Ex. 17, CSXT0074449 at 449; Ex. 18, CSXT0074914 at 915.

⁶ Ex. 16, Girardot (first) Dep. at 64:17-20.

⁷ Ex. 7, Strongosky (first) Dep. at 69:15-70:1.

⁸ Ex. 16, Capozzi Dep. at 100:4-22.

⁹ Ex. 16, Capozzi Dep. at 101:5-13.

¹⁰ Ex. 16, Capozzi Dep. at 192:21-193:21.

C. NS Enjoys Several Competitive Advantages Over CSX at the Port of Virginia.

NS completed its “Heartland Corridor” project in 2010, which gave NS double-stack service through the Port of Virginia and the fastest and most direct routes to Midwest destinations from the Port of Virginia.¹²

¹³ In contrast, CSX did not achieve double-stack capabilities from the Port of Virginia until December 2016.

NS has on-dock access at NIT via the tracks that it owns. It enters NIT through the southern main gate where it travels in a continuous clockwise fashion as it moves into NIT, loads containers, and then exits NIT’s northern back gate.¹⁴ On the other hand, NPBL has trackage rights that allow it to enter and exit NIT through the northern back gate.¹⁵ NS and NPBL trains enter and move through NIT in different directions, meaning that two trains cannot be on the tracks at the same time.¹⁶ CSX has rail access to the on-dock facilities at NIT via NPBL, provided that CSX pays the NPBL switch rate.¹⁷

¹¹ Ex. 5, Wright Rep. ¶ 132; Ex. 19, Joyner (30(b)(6)) Dep. at 118:18-119:4; Ex. 7, Strongosky (first) Dep. at 83:5-13.

¹² Ex. 20, NSR_00001839 at 840; Ex. 21, McClellan (first) Dep. at 22-23, 151.

¹³ Ex. 22, Strongosky (2d) Dep. 70:17-71:3; Ex. 23, CSXT0165126.

¹⁴ Ex. 24, MacDonald Dep. at 90:18-92:5; Ex. 25, Martinez Dep. 31:20-32:04.

¹⁵ Ex. 26, NSR_00306428 at 429; Ex. 27, CSXT0001276 at 276; Ex. 28, NPBL013648 at 649; Ex. 24, MacDonald Dep. at 97:7-17.

¹⁶ Ex. 24, MacDonald Dep. at 92:21-93:1, 121:4-9; Ex. 29, CSXT0117504 at 504.

¹⁷ Ex. 24, MacDonald Dep. 42:3-6, 134:16-135:9; Ex. 7, Strongosky (first) Dep. at 195:2-9; Ex. 30, CSXT0037049 at Slide 4; Ex. 31, Hall Dep. 33:20-22; Ex. 32, Eliasson Dep. 81:6-9; Ex. 33, CSXT0050615 at 615.

While NS focused its investments at the Port of Virginia, CSX concentrated its efforts at the Port of NY/NJ. CSX has long prioritized the Port of NY/NJ as its main port for international intermodal services.¹⁸ [REDACTED]

[REDACTED]¹⁹ The Port of Virginia's main competitor for discretionary international intermodal cargo is the Port of NY/NJ, which is the East Coast port with the largest intermodal container business.²⁰

D. NS and CSX Compete with Trucks for Ocean Carriers' Intermodal Business.

Between 2012 and 2019, trucks accounted for 60 to 65 percent of all international intermodal traffic through the Port of Virginia.²¹ CSX and Port officials confirm that trucks and rail compete most closely for international intermodal traffic movements of up to 200 miles.²² CSX and NS executives confirm that trucks and rail also compete for international intermodal movements between 200 and 500 miles, and in certain circumstances, for movements longer than 500 miles.²³ [REDACTED]

¹⁸ Ex. 5, Wright Rep. at ¶ 74; Ex. 34, Kendall Dep. 29:16-30:1; Ex. 35, VPA000793.

¹⁹ Ex. 5, Wright Rep. at ¶ 74; Ex. 7, Strongosky (first) Dep. at 89:21-90:4; Ex. 36, CSXT0003603 at 616; Ex. 37, CSXT0074939 at Slide 3; Ex. 25, CSXT0165126.

²⁰ Ex. 5, Wright Rep. at ¶ 73; Ex. 15, Capozzi Dep. at 187:20-23; Ex. 16, Girardot (first) Dep. at 77:25-78:3; Ex. 7, Strongosky (first) Dep. at 212:1-6; Ex. 38, CSXT0052080 at 082-083; Ex. 39, CSXT0072702 at 702; Ex. 40, CSXT0032388 at 388; Ex. 41, CSXT0124777 at 777.

²¹ Ex. 5, Wright Rep. at ¶ 59, Chart 1.

²² Ex. 42, Marvel Reply Rep. ¶ 40; Ex. 9, Piacente Dep. at 86:7-16; Ex. 16, Girardot (first) Dep. at 60:16-22; Ex. 43, Warren Dep. at 72:12-73:5; Ex. 44, Vick Dep. at 48:17-49:6; Ex. 45, CSXT0032082 at 082.

²³ Ex. 7, Strongosky (first) Dep. at 112:8-24; Ex. 21, McClellan (first) Dep. at 119:4-120:18; Ex. 16, Girardot (first) Dep. at 62:7-17; Ex. 8, Kenney (first) Dep. at 47:12-21; Ex. 3, Marvel Dep. at 33:13-23; Ex. 46, CSXT0159556 at 565; Ex. 19, Joyner (30(b)(6)) Dep. at 19:7-20:9; Ex. 5, Wright Rep. at ¶ 61; Ex. 47, NSR_00041595 at 597; Ex. 11, CSXT0063241 at 241; Ex. 48, CSXT0038547 at 547.

[REDACTED]²⁴ [REDACTED]

[REDACTED]

[REDACTED]²⁵

E. Prof. Marvel's Regression Analysis and Models.

CSX alleges that, absent NS and NPBL's efforts to foreclose CSX from on-dock access to NIT, it would have captured significantly more business from ocean carriers and [REDACTED]

[REDACTED] CSX relies on Prof. Marvel's regression analyses to establish competitive harm to ocean carriers and CSX's alleged damages and to show the harms were caused by NS and NPBL. First, Prof. Marvel built two Effects Models that purport to establish that the alleged conduct harmed competition. The Effects Models [REDACTED]

[REDACTED]

[REDACTED] Ex. 1, Marvel Rep. ¶ 81. Second, Prof. Marvel built a Damages Model to quantify CSX's alleged damages by [REDACTED]

[REDACTED]

[REDACTED] Ex. 42, Marvel Reply Report ¶ 107; Ex. 1, Marvel Report ¶¶ 96-98. As explained in more detail below, both the Effects Models and the Damages Model are invalid, and Prof. Marvel's opinions should be excluded.

²⁴ Ex. 49, CSXT0159221 at 221.

²⁵ Ex. 22, Strongosky (2d) Dep. at 18:10-19:16.

²⁶ Ex. 22, Strongosky (2d) Dep. at 32:15-18; Ex. 50, CSXT0159245 at 246-247.

ARGUMENT

Particularly in antitrust cases, models used to show causation and damages “hinge on careful statistical analysis, reasonable assumptions, reliable data, and the robustness of the results.” 2A Phillip E. Areeda & Herbert Hovenkamp, *Antitrust Law: An Analysis of Antitrust Principles and Their Application* ¶ 399c, p. 447 (5th ed. 2020). “If any of these areas are circumspect, then the analysis could provide faulty conclusions as to the existence of or the amount of damages.” *Id.* The flaws inherent in Prof. Marvel’s models—*i.e.*, that they are predicated on both an incorrect causal theory and unable to disentangle legitimate competitive advantages from unlawful ones—lead to “faulty conclusions,” as the Damages Model is constructed to *ensure* it finds damages, and is wholly unsupported in economic literature.

I. LEGAL STANDARD

Admission of expert testimony is governed by Federal Rule of Evidence 702. It is the trial court’s responsibility to “act as [a] gatekeeper[.]” to ensure unreliable and irrelevant testimony does not reach the ears of the jury. *Cooper v. Smith & Nephew, Inc.*, 259 F.3d 194, 199 (4th Cir. 2001) (citing *Daubert v. Merrell Dow Pharms., Inc.*, 509 U.S. 579, 588 (1993)). Most importantly, however, the court should exclude expert testimony that has “a greater potential to mislead than to aid the jury.” *Va. Vermiculite, Ltd. v. W.R. Grace & Co.-Conn.*, 98 F. Supp. 2d 729, 735 (W.D. Va. 2000); *see also Westberry v. Gislaved Gummi AB*, 178 F.3d 257, 261 (4th Cir. 1991).

CSX bears the burden of establishing that Prof. Marvel’s testimony is admissible under Federal Rule of Evidence 702. *See It’s My Party, Inc. v. Live Nation, Inc.*, 88 F. Supp. 3d 475, 483 (D. Md. 2015) (citing *Westberry*, 178 F.3d at 261, *aff’d*, 811 F.3d 676 (4th Cir. 2016)). To carry that burden, CSX must establish that Prof. Marvel’s testimony is “based on sufficient facts or data” and is “the product of reliable principles and methods.” Fed. R. Evid. 702(b)-(c).

II. PROF. MARVEL’S TESTIMONY IS UNRELIABLE BECAUSE IT IS PREMISED ON A FLAWED CAUSAL THEORY THAT IS CONTRADICTED BY THE FACTUAL RECORD.

The Fourth Circuit has held that, even if an expert’s methodology is sound, testimony should be excluded under Federal Rule of Evidence 702(b) when, as here, “it is based on unsound or incorrect assumptions.” *It’s My Party, Inc.*, 88 F. Supp. 3d at 483 (citing *Tyger Constr. Co. v. Pensacola Constr. Co.*, 29 F.3d 137, 142 (4th Cir. 1994)); *see also SMD Software, Inc. v. EMove, Inc.*, 945 F. Supp. 2d 628, 638 (E.D.N.C. 2013) (“[F]lawed assumptions undermine [] reliability.”). An expert is “obligated to request all of the information necessary to form a well-reasoned opinion.” *In re Brand Name Prescription Drugs Antitrust Litig.*, No. 94 C 897 1996 U.S. Dist. LEXIS 8752, at *5 (N.D. Ill. June 24, 1996).

Where, as here, economic expert evidence is introduced to support a plaintiff’s theory of causation, the expert’s analysis must be premised on a robust causal theory, for “[c]ausality cannot be inferred by data analysis alone; rather, one must infer that a causal relationship exists on the basis of an underlying causal theory that explains the relationship between the two variables” that are the subject of the regression analysis. Daniel L. Rubinfeld, *Reference Guide on Multiple Regression* 310 (3d ed. 2011). Together, these principles require that, where a plaintiff proffers expert testimony to establish causation, that testimony must be based on a causal theory that is grounded in the factual record. Prof. Marvel’s expert analyses fail that test.

A. Prof. Marvel’s NIT Intensity Theory Is Unsupported By the Record.

Prof. Marvel’s Effects Models and the Damages Model are both premised on the same causal theory, [REDACTED]

██████████²⁷ Ex. 1, Marvel Rep. ¶ 51, 78-81, 88-94. Prof. Marvel assumes ██████████

[REDACTED]

Ex. 1, Marvel Rep. ¶¶ 78, 80, 88. Prof. Marvel's theory wrongly assumes – as the fact basis for his opinions – that the purported pre-existing demand for NIT is the *cause* of some ocean carriers' decisions to do business disproportionately with NS. Prof. Marvel offers no economic basis for this peculiar demand for a terminal, which is not surprising because it makes no economic sense.²⁸ As a consequence of CSX being foreclosed from NIT (it is not), ocean carriers pay higher prices. But Prof. Marvel's causal theory has it backwards. Rather, an ocean carrier's use of NIT is an *effect* of a number of factors, including significantly an ocean carrier's railroad alignment and the decision-making of the Port. Indeed, contrary to Prof. Marvel's assumption, the factual record (and common sense) demonstrates that an ocean carrier's use of NIT is *not* indicative of an inherent demand for NIT.

Unsurprisingly, Prof. Marvel cannot explain how or why this inherent demand for NIT would arise. Prof. Marvel merely assumes [REDACTED]

Ex. 1, Marvel Rep.

¶ 78. To test this (flawed) hypothesis, Prof. Marvel analyzes the

²⁷ See *Loren Data Corp., v. GSX Inc.*, 501 F. App'x 275, 282 (4th Cir. 2012) (“The anticompetitive conduct requirement reflects the essence of an antitrust violation, that of harm to competition, rather than to an individual competitor.”); *Dickson v. Microsoft Corp.*, 309 F.3d 193, 206 (4th Cir. 2002) (“To have an ‘anticompetitive effect,’ conduct ‘must harm the competitive *process* and thereby harm consumers.’”) (quoting *United States v. Microsoft Corp.*, 253 F.3d 34, 58 (D.C. Cir. 2001)); *Oksanen v. Page Mem’l Hosp.*, 945 F.2d 696, 708 (4th Cir. 1991) (“[T]he reasonableness of a restraint is evaluated based on its impact on competition as a whole within the relevant market.”).

²⁸ Ex. 3, Marvel Dep. at 136:11-138:22 ([REDACTED]
[REDACTED]
[REDACTED]).

Ex. 1, Marvel Rep. ¶ 80. In his regressions, Prof. Marvel *Id.* (emphasis added). Thus, Prof. Marvel assumes that the proportion of business an ocean carrier moves through NIT is reflective of an inherent *demand* for NIT. The assumption also underlies Prof. Marvel’s Damages Model, which purports to Ex. 1, Marvel Rep. ¶ 88 (emphasis added). In doing so, Prof. Marvel’s model purports to Ex. 1, Marvel Rep. ¶ 88. In actuality, the models merely reflect ocean carriers’ existing relationships with the two railroads—and nothing more.

B. Prof. Marvel Ignores the Record Evidence that Contradicts His Assumption of an Inherent Demand for NIT.

Prof. Marvel's opinions are not based on sufficient facts and data because he ignores the overwhelming record evidence that the Port's operational arm dictates the terminal where ocean carriers dock. During the relevant period, ocean carriers calling on the Port of Virginia could dock at NIT, VIG or, for part of the period, PMT. Testimony from the Port is clear: [REDACTED]

[REDACTED]²⁹ Rather, the Port assigns ocean carriers to a terminal as they enter the port.³⁰ Rob Girardot, CSX's Director

²⁹ Ex. 15, Capozzi Dep. at 100:23-101:13.

³⁰ Ex. 44, Vick Dep. at 27:25-28:8; Ex. 15, Capozzi Dep. at 100:23-101:13, 105:1-6, 193:24-194:6; Ex. 16, Girardot (first) Dep. at 64:17-20; Ex. 17, CSXT0074449 at 449; Ex. 18, CSXT0074914 at 915.

of Strategy & Analytics, confirmed that the port makes this decision:

[REDACTED]
[REDACTED]
[REDACTED]³¹

Prof. Marvel himself acknowledged that the Port “[REDACTED]” at the terminals, Ex. 1, Marvel Rep. ¶ 35, meaning that the Port may route an ocean carrier to VIG or NIT, or vice versa. There are many factors that play into the decision, but a purported inherent demand for NIT is not among them. The testimony is consistent across CSX and the Port’s witnesses: for many years, [REDACTED]

[REDACTED]
[REDACTED]
[REDACTED]³²

The effect of the Port’s terminal decision-making can be seen from the parties’ container movement data. As NS’s economic expert explained, “[REDACTED]

[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]” Ex. 5,

Wright Rep. ¶ 123. This pattern reflects the Port’s expected assignment of ocean carriers to

³¹ Ex. 16, Girardot (first) Dep. at 64:17-20.

³² Ex. 15, Capozzi Dep. at 100:23-101:13, 193:24-194:6; Ex. 16, Girardot (first) Dep. at 64:17-20; Ex. 17, CSXT0074449 at 449; Ex. 18, CSXT0074914 at 915. CSXT encourages the Port to send its aligned ocean carrier customers to VIG instead of NIT. Ex. 16, Girardot (first) Dep. at 64:21-65:10; Ex. 7, Strongosky (first) Dep. at 69:15-70:1; Ex. 44, Warren Dep. at 122:9-17; Ex. 15, Capozzi Dep. at 116:9-117:8; Ex. 51, CSXT0049507 at 508; Ex. 52, CSXT0073025 at 027; Ex. 53, CSXT0067839 at 840.

³³ See Ex. 5, Wright Rep. at Tbls. 5, 6.

specific terminals based on their railroad alignment. Prof. Marvel acknowledges the accuracy of these figures, but none of his models take into account the Port's active role in steering ocean carriers that do business with CSX away from NIT.³⁴

In addition, neither Prof. Marvel,³⁵ nor any other witness in this case,³⁶ has identified any freight that *must* move through NIT (as opposed to VIG or PMT, or another East Coast port) such that the NIT terminal would be an ocean carrier's only option. In fact, Prof. Marvel acknowledged that for every Midwest destination that is served by any of the three terminals at Hampton Roads, there is at least one other East Coast port that ocean carriers could choose to serve those destinations.³⁷ An ocean carrier's railroad alignment also impacts its port intensity. The record is clear that CSX's best route structure to the Midwest is through the Port of NY/NJ; as a result, for instance, carriers using CSX for transport to/from Chicago moved [REDACTED] through the Port of NY/NJ than through the Port of Virginia. In contrast, NS's best route to the same locations is through the Port of Virginia; ocean carriers that use NS for rail transport to/from Chicago [REDACTED] through the Port of

³⁴ Ex. 3, Marvel Dep. at 72:24-73:10 ([REDACTED]).

³⁵ Ex. 3, Marvel Dep. at 87:1-87:7 ([REDACTED]).

³⁶ Ex. 10, Houfek Dep. at 141:7-16; Ex. 7, Strongosky (first) Dep. at 219:9-18; Ex. 15, Capozzi Dep. at 193:24-194:6.

³⁷ Ex. 3, Marvel Dep. at 45:10-13 ([REDACTED]).

Virginia as through the Port of NY/NJ. Thus, overall, [REDACTED]
 [REDACTED] Ex. 5, Wright
 Rep. ¶ 152, Tbls. 1, 2.

Further, the pricing practices of both CSX and NS are inconsistent with the notion that
 there is inherent demand for NIT. [REDACTED]

[REDACTED] In other words,
 for a particular route—*i.e.*, an origin and destination pair—[REDACTED]

[REDACTED]³⁹ Prof. Marvel was unaware of this fact, because, remarkably,
 he never reviewed contracts between CSX or NS and their ocean carrier customers.⁴⁰ Nor did
 Prof. Marvel speak to any ocean carriers to confirm his opinion that carriers have a given demand
 for NIT:

[REDACTED]

[REDACTED]

[...]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]⁴¹

³⁸ Ex. 5, Wright Rep. ¶ 132; Ex. 19, Joyner (30(b)(6)) Dep. at 118:18-119:4; Ex. 7, Strongosky (first) Dep. at 83:5-13.

³⁹ Ex. 19, Joyner (30(b)(6)) Dep. at 118:18-119:4; Ex. 7, Strongosky (first) Dep. at 83:5-13.

⁴⁰ Ex. 3, Marvel Dep. at 41:20-42:2 ([REDACTED]
 [REDACTED]
 [REDACTED]
 [REDACTED]).

⁴¹ Ex. 3, Marvel Dep. at 87:8-87:19.

This is in part because CSX never sought discovery from any of the ocean carriers, the customers that it must prove have been harmed by the alleged behavior.

* * *

Thus, Prof. Marvel's assumption that intensity of use reflects an inherent demand for service at NIT is contradicted by the record. Both Prof. Marvel's Effects Models and the Damages Model depend upon the assumption being true. The models themselves do not establish that there is inherent demand. Instead, they assume the intensity of ocean carriers' use of NIT as the cause of the carriers' choice of railroad when instead it is the effect of their choice of railroad and the decision of the Port. Prof. Marvel's analyses, based as they are on an assumption contradicted by the factual record, are unreliable and not based on sufficient facts and data, and should therefore be excluded. *See It's My Party*, 88 F. Supp. 3d at 486-87 (concluding that the expert's market definition premised on assertion that "certain artists prefer amphitheaters" was not based on "sufficient facts or data"); *SMD Software, Inc.*, 945 F. Supp. 2d at 637 (finding expert's analysis of loss of market share was based on a "large unsupported leap"); *Pharmanetics, Inc. v. Aventis Pharms., Inc.*, No. 5:03-CV-817-FL(2), 2005 WL 6000369, at *9 (E.D.N.C. May 4, 2005) (excluding expert's damages model "because it rests upon two assumptions that are not supported by the record"), *aff'd*, 182 F. App'x 267 (4th Cir. 2006); *Basile Baumann Prost Cole & Assocs. v. BBP & Assocs. LLC*, No. WDQ-11-2478, 2012 U.S. Dist. LEXIS 103915, at *14 (D. Md. July 25, 2012) (excluding expert opinion where it rested on company's allegation of loss of goodwill based on defendant's conduct that was unsupported by evidence in the record); *see also id.* ("[A]n opinion is irrelevant when it assumes facts inconsistent with the record.").

Prof. Marvel's assumption of a given demand at NIT is like the expert analysis discussed—and ultimately excluded—in *It's My Party*. In *It's My Party*, the plaintiffs' expert witness provided

testimony and economic modeling purporting to establish that “a subset of artists ‘prefer amphitheaters,’ and would not substitute different venues for them.” 88 F. Supp. 3d at 486. The court reviewed the “anecdotal and quantitative evidence” offered by the expert in support of this assertion, and held that the expert’s analysis was not “the product of reliable principles and methods.” *Id.* First, the court noted that the economic model offered by the expert was insufficient to prove that there was an inherent preference for amphitheaters because the model “[did] nothing to indicate whether a change in the price to artists for amphitheaters...would induce greater demand for arenas or other venues.” *Id.* at 486. Absent such an analysis, there was no basis on which to conclude that artists have an inherent preference for amphitheaters over other venues. Second, the court found that the “subjective proof of artist preference [was] similarly unreliable.” *Id.* at 487. The Court noted that “[t]he fact that [certain artists] enjoyed performing in amphitheaters more than in non-amphitheaters, however, did not result in the type of ‘preference’ that [plaintiffs’ expert] argues artists have.” *Id.* Facing these flaws, the court did not hesitate to “exercise [its] discretion under 702 to exclude the ‘preferring amphitheaters’ categorization.” *Id.* at 488.

Like in *It’s My Party*, Prof. Marvel assumes that ocean carriers have a preference for NIT over “other venues” without factual support. *Id.* at 486. Prof. Marvel offers nothing in support of his assumption that ocean carriers prefer NIT. He makes no showing that ocean carriers would stay at NIT in the face of an increase in prices, and he cites to no “subjective proof” from ocean carriers themselves to demonstrate a demand for NIT. Indeed, Prof. Marvel’s factual basis falls shorter than the theory rejected in *It’s My Party*. The Court should exercise its gatekeeping function, as the court did in *It’s My Party*, to exclude Prof. Marvel’s opinions.

III. PROF. MARVEL’S MODELS ARE UNRELIABLE BECAUSE THEY CANNOT SHOW A CAUSAL CONNECTION BETWEEN THE ALLEGED CONDUCT AND THE RESULTS OF THE ANALYSES.

Part of the job of Prof. Marvel’s regression models is to show that it is the alleged wrongful conduct of NS and NPBL, not some other phenomenon, that caused harm to competition (here, ocean carriers) and damages to CSX (here, alleged lost profits from CSX’s purported inability to increase its business with ocean carriers). But Prof. Marvel’s regression models are unable to distinguish between the alleged anticompetitive conduct and ordinary, legitimately occurring competitive forces. As a result, they cannot be relied upon to prove effects or damages, and therefore must be excluded.

A. Economic Analyses of Anticompetitive Effects or Damages Must Account for Alternative, Procompetitive Explanations.

An expert’s failure to properly account for alternative explanations to explain the conduct in question can form the basis for excluding the expert’s opinions or models. *See Cooper*, 259 F.3d at 202 (“[I]f an expert utterly fails to consider alternative causes or fails to offer an explanation for why the proffered alternative cause was not the sole cause, a district court is justified in excluding the expert’s testimony.”); *Blue Dane Simmental Corp. v. Am. Simmental Ass’n*, 178 F.3d 1035, 1040-41 (8th Cir. 1999) (excluding expert analysis addressing causation and damages where it did not account for all factors that could contribute to a decrease in market value); *Verisign, Inc. v. XYZ.com, LLC*, No. 1:14-cv-01749, 2015 WL 7430016, at *5 (E.D. Va. Nov. 20, 2015) (expert’s finding a causal connection between the “harm” to plaintiff and the timing of defendants’ statements was unreliable because the expert failed to account for a number of factors including other competitors, plaintiff’s decline in sales, advertising and promotions), *aff’d*, 848 F.3d 292 (4th Cir. 2017); *In re Wireless Tel. Servs. Antitrust Litig.*, 385 F. Supp. 2d 403, 427 (S.D.N.Y. 2005) (“Where an expert conducts a regression analysis and fails to incorporate major independent

variables, such analysis may be excluded as irrelevant.”); *Pharmanetics*, 2005 WL 6000369, at *16 (damages model excluded because it incorrectly assumed that all of plaintiff’s damages were caused by defendant’s actions).

Indeed “[t]he importance of accounting for the relevant ‘major variables’ has been recognized as *particularly important* in the context of antitrust litigation,” *In re Live Concert Antitrust Litig.*, 863 F. Supp. 2d 966, 973 (C.D. Cal. 2012) (emphasis added), because a proper analysis of the “but-for” world “includes in damages only the loss *caused* by the harmful act.” MARK A. ALLEN ET AL., REFERENCE GUIDE ON ESTIMATION OF ECONOMIC DAMAGES 432 (3d ed. 2011). Moreover, a proper “antitrust damages calculation must isolate the effect of the antitrust violation.” 2A P. Areeda & H. Hovenkamp, *supra* ¶ 392b; *see also MCI Commc’ns Corp. v. Am. Tel. & Tel. Co.*, 708 F.2d 1081, 1161 (7th Cir. 1983) (“It is a requirement that an antitrust plaintiff must prove that his damages were caused by the *unlawful* acts of the defendant.”).

The Supreme Court emphasized the link between the economic analysis of an alleged antitrust violation and the conduct of the claim in *Comcast Corp. v. Behrend*, 569 U.S. 27, 34 (2013). There, plaintiffs’ expert admitted that the regression model was based on “the alleged anticompetitive conduct as a whole”—*i.e.*, it did not distinguish between damages from the actionable conduct and “conduct in general.” *Id.* at 36-38. The Court held that this approach did not provide a basis for awarding damages because the “first step in a damages study is the translation of the *legal theory of the harmful event* into an analysis of the economic impact *of that event*.” *Id.* at 38 (citation omitted). But in *Comcast*, as here, the methodology was muddled to “identify ‘damages’ that are not the result . . . of the wrong.” *Id.* at 37 (citation omitted).

In *In re Live Concert*, the court excluded an expert’s regression analysis as irrelevant and unreliable where the expert created a single variable regression model to evaluate the impact of

defendant's alleged anticompetitive conduct in connection with its nationwide promotion of music and ticket sales. 863 F. Supp. 2d at 977-82. The court held that:

[Plaintiff's] analysis impermissibly fails to account for at least two major variables, both of which he has conceded could impact ticket prices: (1) changes in artist quality over the relevant time period; and (2) the emergence of digital downloading music . . . and its impact on the price of tickets for live concerts.

Id. at 978. Similarly, Prof. Marvel fails to account for other factors such as Norfolk Southern's legitimate, pro-competitive advantages and therefore his models should be excluded as unreliable.

B. Prof. Marvel's Regression Models Are Unreliable Because None of the Models are Capable of Distinguishing Anticompetitive Effects from Procompetitive Effects.

CSX relies on Prof. Marvel's regression models to establish key elements of its antitrust claims: harm to competition and damages to CSX. But Prof. Marvel's models do not properly measure harm or damages. To assess harm to competition, Prof. Marvel testified that he addressed the question whether NS had taken actions that allowed it to increase prices to consumers, the ocean carriers.⁴² His Effects Models purport to [REDACTED] [REDACTED], but Prof. Marvel conceded that his Effects Models do not rule out that the pricing results reflect legitimate differences between NS and CSX

⁴² Ex. 3, Marvel Dep. at 21:22-22:23 ([REDACTED]).

in their capabilities.⁴³ Indeed, Prof. Marvel's models find pricing power for CSX and NS at various ports. Curiously, his models find effects where, according to his theory, there should not be any.

Similarly, Prof. Marvel's Damages Model generates [REDACTED]

[REDACTED] which is then used to estimate economic harm in the form of lost profits that CSX allegedly suffered throughout its intermodal network. Ex. 1, Marvel Rep. ¶ 88. Critically, however, Prof. Marvel acknowledges that his Damages Model *does not* attempt to distinguish NS's legitimate competitive advantages from the alleged unlawful actions:

[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]⁴⁴

This means that the model's damages output could reflect the workings of ordinary competitive forces, like NS's legitimate competitive advantages at the Port of Virginia (for which CSX has no legal claim and cannot recover), or by the conduct that CSX claims to have been anticompetitive and unlawful, or by a little of both. *See MCI Commc'ns Corp.*, 708 F.2d at 1160-61; *Coleman Motor Co. v. Chrysler Corp.*, 525 F.2d 1338, 1353 (3d Cir. 1975) (vacating judgment). This is fatal to Prof. Marvel's opinions.

As set forth above, the record evidence establishes that NS has a number of historical advantages at the Port of Virginia that neither model takes into account, but which are plausible alternative explanations for NS and CSX's relative performances at the Port of Virginia. *First*,

⁴³ Ex. 3, Marvel Dep. at 151:16-152:2; see also 157:9-13 ([REDACTED])

⁴⁴ Ex. 3, Marvel Dep. at 157:9-13.

Norfolk Southern invested hundreds of millions of dollars to ensure it had the ability to double-stack containers from the Port of Virginia to Midwest destinations as early as 2010.⁴⁵ As CSX has acknowledged, double-stacking generates significant efficiencies as compared to single-stack train movements.⁴⁶ For example, a double-stacked train can move up to three containers in a single well, compared to a single-stacked train that can only hold one.⁴⁷ This ability gave NS a significant competitive advantage over CSX for much of the period that CSX alleges damages.⁴⁸ In contrast, CSX did not even gain the ability to double-stack out of the Port until December 2016.⁴⁹ [REDACTED]

[REDACTED]⁵⁰ Instead, CSX's plan was to start competing with NS for ocean carrier business once CSX achieved double-stack capability.⁵¹ It is beyond dispute that NS enjoyed a significant advantage over CSX thanks to its substantial investment in double-stacking capabilities long before CSX did. Prof. Marvel's models do not attempt to account for this significant NS historical advantage.

⁴⁵ Ex. 5, Wright Rep. ¶ 17; Ex. 21, McClellan (first) Dep. at 151:5-7; Ex. 54, McClellan (second) Dep. at 174:14-23; Ex. 20, NSR_00001839 at 840.

⁴⁶ Ex. 5, Wright Rep. ¶ 17; Ex. 8, Kenney (first) Dep. at 41:20-42:1, 117:5-15; Ex. 7, Strongosky (first) Dep. at 45:14-47:1, 148:17-149:19; Ex. 9, Piacente Dep. 73:24-74:23; Ex. 55, CSXT0000897 at Slide 6-7; Ex. 56, CSXT0001792 at 792-794; Ex. 41, CSXT0124777 at 778.

⁴⁷ Ex. 16, Girardot (first) Dep. at 184:12-25.

⁴⁸ Ex. 32, Eliasson Dep. at 49:2-51:8.

⁴⁹ Ex. 5, Wright Rep. ¶ 17; Ex. 16, Girardot (first) Dep. at 217:5-12; Ex. 9, Piacente Dep. at 73:24-74:6; Ex. 57, CSXT0052366 at Slide 9; Ex. 58, CSXT0024736 at 736.

⁵⁰ Ex. 10, Houfek Dep, at 51:3-25; Ex. 58, CSXT0024736.

⁵¹ Ex. 10, Houfek Dep, at 51:3-25; Ex. 58, CSXT0024736.

Second, [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

⁵⁶

Third, [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] NS enters NIT through the southern main gate and travels in a continuous clockwise fashion as it moves into NIT, loads containers, and then exits NIT's

⁵² Ex. 22, Strongosky (2d) Dep. at 24:2-22, 32:10-18; Ex. 50, CSXT0159245 at 246-247; Ex. 59, CSXT0158984, at 986; Ex. 9, Piacente Dep. at 127:6-129:18. [REDACTED]

[REDACTED] Ex. 42, Marvel Reply Rep. at Ex. 15.

⁵³ Ex. 7, Strongosky (first) Dep. at 137:17-138:12; Ex. 22, Strongosky (2d) Dep. at 18:5-22; 27:19-28:1.

⁵⁴ Ex. 22, Strongosky (2d) Dep. at 24:2-22, 32:10-18; Ex. 50, CSXT0159245 at 246-247; Ex. 59, CSXT0158984, at 986; Ex. 9, Piacente Dep. at 127:6-129:18.

⁵⁵ Ex. 22, Strongosky (2d) Dep. at 32:10-18; Ex. 50, CSXT0159245 at 246-247.

⁵⁶ [REDACTED]

⁵⁷ Ex. 22, Strongosky (2d) Dep. at 70:17-71:3; Ex. 20, NSR_00001839 at 840; Ex. 23, CSXT0165126.

northern back gate.⁵⁸ On the other hand, NPBL has trackage rights that allow it to enter and exit NIT through the northern back gate.⁵⁹ Because NPBL must leave through the same gate which it entered, NPBL's train has to be pulled into NIT, loaded with containers, and then reverse out of NIT, increasing the transit time. [REDACTED]

[REDACTED]⁶⁰ Ex. 5, Wright Rep. ¶ 60. [REDACTED]

Prof. Marvel agrees that CSX and NS each has competitive advantages over the other at various ports that are not the result of anticompetitive conduct.⁶¹ But he did not study whether NS had legitimate competitive advantages over CSX at the Port that could explain ocean carriers' preference for NS over CSX.⁶² He did not even ask CSX for information regarding legitimate competitive advantages and disadvantages it has had at the Port of Virginia.⁶³ As a result, his Damages Model does not properly measure damages. *See MCI Commc'ns*, 708 F.2d at 1161 ("It is essential . . . that damages reflect only the losses directly attributable to *unlawful* competition.").

⁵⁸ Ex. 24, MacDonald Dep. at 90:18-92:5.

⁵⁹ Ex. 26, NSR_00306428 at 429; Ex. 27, CSXT0001276 at 276; Ex. 28, NPBL013648 at 649; Ex. 24, MacDonald Dep. at 97:7-17

⁶⁰ Ex. 22, Strongosky (2d) Dep. at 70:17-71:13.

⁶¹ Ex. 3, Marvel Dep. at 128:2-8 ([REDACTED]).

⁶² Ex. 3, Marvel Dep. at 128:9-15 ([REDACTED]).

⁶³ Ex. 3, Marvel Dep. at 127:1-4 ([REDACTED]).

Because the Damages Model would require “a jury to speculate concerning the amount of losses resulting from unlawful, as opposed to lawful competition,” *Coleman Motor*, 525 F.2d at 1353, Prof. Marvel’s testimony must be excluded.

Moreover, a practical look at the marketplace over the relevant period shows Prof. Marvel’s results are implausible. The Damages Model purports to show [REDACTED]

[REDACTED] despite CSX’s access to and use of other terminals within that same port. In fact, [REDACTED]

[REDACTED] Ex. 5, Wright Rep. ¶ 137; Ex. 4, Wright Supp. Rep. ¶ 18 and Chart 1.

[REDACTED] The Damages Model purports to analyze the shift in ocean carrier business to CSX that would have occurred absent CSX’s alleged “foreclosure” from NIT. But the lost profits figure generated by the model,

[REDACTED]⁶⁴ Ex. 5, Wright Rep. ¶ 136. It defies logic that CSX would [REDACTED]

[REDACTED] alleged lost profits.⁶⁵ Where the expert’s opinion has “a greater potential to mislead [rather] than to aid the jury,” *Va. Vermiculite*, 98 F. Supp. 2d at 735, the opinion must be excluded.

⁶⁴ [REDACTED]

⁶⁵ [REDACTED]

C. Prof. Marvel's Models Improperly Rely on Allegedly Wrongful Conduct that Occurred Outside of the Limitations Period.

Just like he failed to account for legitimate competitive advantages in his causation analysis, Prof. Marvel's Damages Model fails to distinguish purported damages flowing from allegedly wrongful conduct that occurred outside the limitations period. Rather, Prof. Marvel based his damages calculations on the "the *totality* of NS's and NPBL's efforts to foreclose CSX." His reliance on conduct occurring outside the limitations period in calculating purported damages requires that his damages opinions be excluded. *See Gumwood HP Shopping Partners, L.P. v. Simon Prop. Grp., Inc.*, 221 F. Supp. 3d 1033, 1044-45 (N.D. Ind. 2016) (excluding plaintiff's expert because his model gave the jury "no basis on which to evaluate the effect of the statute of limitations on his damages opinion").⁶⁶

IV. PROF. MARVEL'S DAMAGES MODEL IS UNRELIABLE BECAUSE IT IS BOUND TO FIND DAMAGES WHERE OCEAN CARRIERS USE ANY PORT INTENSIVELY.

As discussed above, Prof. Marvel's Damages Model attempts to predict the likelihood of CSX winning additional ocean carrier business "but for [its] competitive disadvantage at NIT." Ex. 1, Marvel Report ¶ 88. Based on an ocean carrier's "reliance on NIT," the Damages Model generates a probability—a percentage likelihood—that an ocean carrier would have chosen to do business with CSX in the but-for world. Ex. 1, Marvel Report ¶ 88. The answer to this question, however, is "preordained by the regression specification." Ex. 5, Wright Rep. ¶ 207. Because the Port tends to consolidate NS-aligned carriers at NIT and those aligned with CSX to VIG and PMT, there will *always* be a negative relationship between a carrier's decision to contract with CSX and

⁶⁶ In the interest of preserving judicial economy, and as permitted by Federal Rule Civil Procedure 10(c), NS adopts and incorporates by reference as if set forth in full herein NPBL's Motion in Limine #5 to Exclude Testimony from Plaintiff's Expert Howard Marvel filed concurrently.

its NIT usage. For that same reason, Prof. Marvel's empirical model would find a negative relationship between a carrier's decision to contract with NS and its VIG usage, despite no plausible claims of a competitive disadvantage for NS at VIG. By substituting for those factors, Prof. Marvel's analysis would imply damages to NS of [REDACTED] Ex. 5, Wright Rep. ¶¶ 209-210, Tbl. 14. Put simply, the Damages Model does not actually predict anything; it merely provides faulty conclusions as to the likelihood that an ocean carrier will use NIT based on its current contractual relationship with NS, CSX, or both.

In response to Defendants' expert's criticisms of the Damages Model, Prof. Marvel sought to rescue his empirical work by introducing a variation of his Damages Model in his reply report. This variation [REDACTED] [REDACTED] Ex. 42, Marvel Reply Report ¶ 122. Instead, the variation purportedly demonstrates [REDACTED] [REDACTED] which according to Prof. Marvel, makes a carrier [REDACTED] Ex. 42, Marvel Reply Report ¶ 122.

The new variation does not save Prof. Marvel's damages analysis, because it still suffers from the same lack of ability to make a causal connection between the alleged conduct and the purported damages: it cannot distinguish whether an ocean carrier is likely to use NS at the Port because of NS's legitimate competitive advantages at the Port or because of allegedly anticompetitive conduct. This is a fatal problem, since NS's legitimate competitive advantages from its rail network to and from the Port—described in greater detail above—lead it to move significant volumes of discretionary cargo through the Port of Virginia that might otherwise move through other ports. As a result, the Damages Model will interpret NS's propensity to move a disproportionate amount of its traffic through the Port as evidence of anticompetitive conduct,

which will in turn generate damages for CSX. In fact, however, this pattern is equally as consistent with the legitimate competitive advantages NS has enjoyed at the Port for several years. But again, Prof. Marvel does not take this into account.

[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]⁶⁷

Because this variation of Prof. Marvel's Damages Model cannot distinguish between legitimate competitive advantages and anticompetitive conduct, it will generate higher damages than if the purported anticompetitive conduct was analyzed on its own.

As an example highlighting the flaw in this analysis, consider CSX's position at the Port of NY/NJ—the largest East Coast port and the Port of Virginia's main competitor. [REDACTED]

[REDACTED]

[REDACTED]⁶⁸ Both the Port of Virginia and the Port of NY/NJ can reach the same midwestern destinations.⁶⁹ A similarly-designed Damages Model based on CSX's traffic at the Port of NY/NJ would be bound to find lost profit "damages" for NS simply based on the fact that carriers have a higher likelihood of doing business with CSX, rather than NS, at that port. Once again, Prof. Marvel's Damages Model merely reflects ocean carriers' existing relationships with the two railroads.

⁶⁷ Ex. 3, Marvel Dep. at 157:14-18.

⁶⁸ Ex. 5, Wright Rep. ¶ 74; Ex. 60, CSXT0046841 at Slide 8.

⁶⁹ Ex. 61, NSR_00000912 at Slide 21; Ex. 62, CSXT0003592 at Slide 11; Ex. 37, CSXT0074939 at Slides 3-4; Ex. 63, CSXT0096239.

Unsurprisingly, Prof. Marvel admitted that his Damages Model, in either form, is not supported by any economic literature.⁷⁰ Indeed, *Daubert* requires that an expert's "theory or technique enjoys general acceptance within a relevant scientific community." *Cooper*, 259 F.3d at 199 (citing *Daubert*, 509 U.S. at 593-94). Thus, "a regression analysis must be the product of a consistently followed methodology." *Reed Constr. Data Inc. v. McGraw-Hill Cos.*, 49 F. Supp. 3d 385, 400 (S.D.N.Y. 2014), *aff'd*, 638 F. App'x 43 (2d Cir. 2016). A damages model that is designed to always find damages and is unsupported by relevant literature is nonsensical and should be excluded as unreliable.

The foregoing flaws lead to the inescapable conclusion that the Effects Models and the Damages Model are unreliable and would mislead the jury, and should therefore be excluded.

CONCLUSION

For the reasons mentioned herein, NS respectfully asks this Court to exclude the testimony and underlying analyses of Prof. Howard P. Marvel.

[Signatures on following page]

⁷⁰ Ex. 3, Marvel Dep. at 157:3-6 ([REDACTED]).

Dated: October 13, 2022

Respectfully submitted,

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